(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 4 October 2001 (04.10.2001)

PCT

(10) International Publication Number WO 01/073109 A3

(51) International Patent Classification⁷: G01N 27/28, 27/30, 33/487, 27/403

C12Q 1/00,

[GB/GB]; 5 Stratherrick Gardens, Inverness 1V2 4LX (GB).

- (21) International Application Number: PCT/US01/10097
- (22) International Filing Date: 28 March 2001 (28.03.2001)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/537,599

28 March 2000 (28.03.2000) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US Filed on 09/537,599 (CON) 28 March 2000 (28.03.2000)

(71) Applicant (for all designated States except US): DIA-

- (71) Applicant (for all designated States except US): DIA-BETES DIAGNOSTICS, INC. [US/US]; 51 Sawyer Road, Suite 150, Waltham, MA 02453 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DAVIES, Oliver, William, Hardwicke [GB/GB]; 15 Drummond Circus, Inverness Circus, Inverness 1V2 4QP (GB). MCALEER, Jerome, Francis [GB/GB]; 52 Nobles Close, Grove Wantage OX12 ONR (GB). YEUDALL, Robert, Malcolm

(74) Agents: SHAY, Bernard, E. et al.; LifeScan. Inc., 1000

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

Gibraltar Drive, Milpitas, CA 95035-6312 (US).

- DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG)

Published:

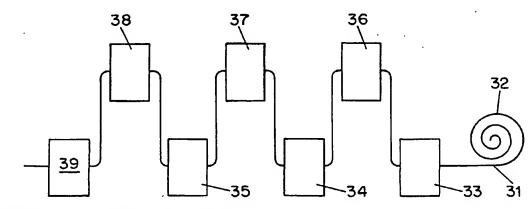
- with international search report
- (88) Date of publication of the international search report: 20 February 2003
- (15) Information about Correction:

Previous Correction:

see PCT Gazette No. 05/2002 of 31 January 2002, Section II

[Continued on next page]

(54) Title: CONTINUOUS PROCESS FOR MANUFACTURE OF DISPOSABLE ELECTRO-CHEMICAL SENSOR



(57) Abstract: Sensors formed from a substrate, an electrode layer and at least a first reagent layer are manufactured by transporting a continuous web of the substrate past at least two print stations, and printing the electrode layer and the first reagent layer on the substrate. One of the print stations prints the electrode layer on the continuous web of substrate, and the other of the print stations prints the first reagent layer on the continuous web of substrate as it is transported past the print stations. Additional print stations may be included for the printing of insulation layers, glue prints and the like. The order of printing will depend on the structure desired for the sensor, although the electrode layer(s) will frequently be deposited before the reagent layer(s).





O 01/073109

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/US 01/10097

A. CLASSI IPC 7	FICATION OF SUBJECT MATTER C1201/00 G01N27/28 G01N27/	'30 G	01N33/487	G01N	127/403					
According to	o International Patent Classification (IPC) or to both national classifi	ication and IP	C							
	SEARCHED									
Minimum documentation searched (classification system followed by classification symbols) IPC 7 GO1N										
Documentat	lion searched other than minimum documentation to the extent that	such docume	nts are included	in the fields s	earched					
Electronic d	ata base consulted during the international search (name of data b	ase and, whe	re practical, searc	ch terms used	j) ·					
EPO-Internal, WPI Data										
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT									
Category *	Citation of document, with indication, where appropriate, of the re	elevant passa	ges		Relevant to claim No.					
X .	WO 98 43075 A (GIRAULT HUBERT HU ;LAGGER GREGOIRE (CH); LOYALL UW METR) 1 October 1998 (1998-10-01	1-14,19, 20								
γ	the whole document	,			15-18					
Υ	US 5 679 311 A (SCHUESSLER RUDOL 21 October 1997 (1997-10-21) column 1, line 62 -column 4, lin	15-18								
Α .	US 4 218 421 A (MACK JOHN C JR 19 August 1980 (1980-08-19) column 2, line 48 -column 4, lin	14-18								
				·						
Furth	ner documents are listed in the continuation of box C.	X Pa	tent family memb	ers are listed	in annex.					
Special categories of cited documents:										
"A" document defining the general state of the art which is not considered to be of particular relevance "It later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention										
"E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to										
which is	nt which may throw doubts on priority claim(s) or is cited to establish the publication date of another	involve		when the do	cument is taken alone					
O docume	n or other special reason (as specified) Intreferring to an oral disclosure, use, exhibition or	cannot docum	be considered to ent is combined w	involve an im ith one or mo	ventive step when the ore other such docu-					
P document later that	ıs to a person skilledi Iamliy									
Date of the a	nctual completion of the international search	Date of	mailing of the inte	ernational sea	urch report					
8	July 2002	1!	15/07/2002							
Name and m	nailing address of the ISA	Authoria	red officer							
	European Patemt Office, P.B. 5818 Patemtaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo ni, Fax: (+31-70) 340-3016	J	oyce, D							

INTERNATIONAL SEARCH REPORT

PCT/US 01/10097

Patent document cited in search report		Publication date		Patent tamily member(s)	Publication date	
WO 9843075	A	01-10-1998	EP WO	0968416 A1 9843075 A1	05-01-2000 01-10-1998	
US 5679311	A	21-10-1997	DE EP JP JP US	4326339 A1 0637749 A2 2610109 B2 7077528 A 5609823 A	09-02-1995 08-02-1995 14-05-1997 20-03-1995 11-03-1997	
US 4218421	A	19-08-1980	NONE			

Form PCT/ISA/210 (patent family annex) (July 1992)